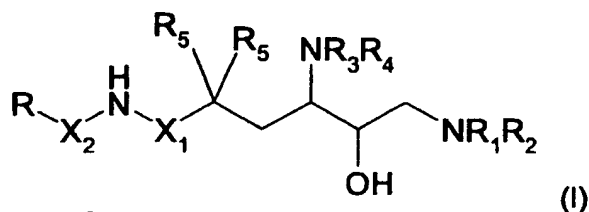


## Claims:

## 1. Compound of the formula



where

$R_1$  is a) hydrogen, hydroxyl or amino; or

is b)  $C_1$ - $C_8$ -alkyl,  $C_3$ - $C_8$ -cycloalkyl,  $C_1$ - $C_8$ -alkanoyl,  $C_1$ - $C_8$ -alkoxycarbonyl, aryl- $C_0$ - $C_4$ -alkyl or heterocyclyl- $C_0$ - $C_4$ -alkyl, which radicals may be substituted by 1-4  $C_1$ - $C_8$ -alkyl, halogen, cyano, oxide, oxo, trifluoromethyl,  $C_1$ - $C_8$ -alkoxy,  $C_1$ - $C_8$ -alkoxycarbonyl, aryl or heterocyclyl;

$R_2$  is a)  $C_1$ - $C_8$ -alkyl,  $C_3$ - $C_8$ -cycloalkyl,  $C_1$ - $C_8$ -alkylsulphonyl,  $C_3$ - $C_8$ -cycloalkylsulphonyl, aryl- $C_0$ - $C_8$ -alkylsulphonyl, heterocyclylsulphonyl,  $C_3$ - $C_{12}$ -cycloalkyl- $C_1$ - $C_8$ -alkanoyl,  $C_3$ - $C_{12}$ -cycloalkyl- $C_3$ - $C_8$ -cycloalkanoyl, aryl- $C_1$ - $C_8$ -alkanoyl, aryl- $C_3$ - $C_8$ -cycloalkanoyl,  $C_1$ - $C_8$ -alkanoyl,  $C_1$ - $C_8$ -alkoxycarbonyl, optionally N-mono- or N,N-di- $C_1$ - $C_8$ -alkylated carbamoyl- $C_0$ - $C_8$ -alkyl, aryl- $C_0$ - $C_4$ -alkyl or heterocyclyl- $C_0$ - $C_4$ -alkyl, which radicals may be substituted by 1-4  $C_1$ - $C_8$ -alkyl,  $C_3$ - $C_8$ -cycloalkyl,  $C_3$ - $C_8$ -cycloalkoxy, amino,  $C_{1-6}$ -alkylamino, di- $C_{1-6}$ -alkylamino,  $C_0$ - $C_6$ -alkylcarbonylamino, halogen, cyano, hydroxyl, oxide, oxo, trifluoromethyl,  $C_1$ - $C_8$ -alkoxy, optionally N-mono- or N,N-di- $C_1$ - $C_8$ -alkylated carbamoyl,  $C_1$ - $C_8$ -alkoxycarbonyl,  $C_{1-8}$ -alkylene-dioxy, aryl or heterocyclyl; or

is b) together with  $R_1$  and the nitrogen atom to which they are bonded, a saturated or partly unsaturated 4-8-membered heterocyclic ring which may contain an additional nitrogen, oxygen or sulphur atom or an -SO- or -SO<sub>2</sub>- group, in which case the additional nitrogen atom may optionally be substituted by  $C_1$ - $C_8$ -alkyl,  $C_1$ - $C_8$ -alkanoyl,  $C_1$ - $C_8$ -alkoxycarbonyl, aryl or heterocyclyl radicals, and this heterocyclic ring may be part of a bicyclic or tricyclic ring system having a total of up to 16 members, and the second ring may also contain a nitrogen, oxygen or sulphur atom or an -SO- or -SO<sub>2</sub>- group, and the nitrogen atom of the second ring may optionally be substituted by  $C_1$ - $C_8$ -alkyl,  $C_1$ - $C_8$ -alkanoyl,  $C_1$ - $C_8$ -alkoxycarbonyl, aryl or heterocyclyl radicals and all ring systems mentioned may be substituted by 1-4  $C_1$ - $C_8$ -alkyl, halogen, hydroxyl, oxide, oxo, trifluoromethyl,  $C_1$ - $C_8$ -alkoxy,  $C_1$ - $C_8$ -alkoxy- $C_1$ - $C_8$ -alkyl,  $C_1$ - $C_8$ -alkoxy- $C_1$ - $C_8$ -alkoxy,  $C_1$ - $C_8$ -alkoxycarbonylamino,  $C_1$ - $C_8$ -alkylcarbonylamino,  $C_1$ - $C_8$ -alkyl-

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amino, N,N-di-C<sub>1</sub>-C<sub>8</sub>-alkylamino, aryl-C<sub>0</sub>-C<sub>4</sub>-alkyl, aryloxy-C<sub>0</sub>-C<sub>4</sub>-alkyl, aryl-C<sub>0</sub>-C<sub>4</sub>-alkyl-C<sub>1</sub>-C<sub>8</sub>-alkoxy, aryloxy-C<sub>0</sub>-C<sub>4</sub>-alkyl-C<sub>1</sub>-C<sub>8</sub>-alkoxy, heterocyclyl-C<sub>0</sub>-C<sub>4</sub>-alkyl, heterocyclyloxy-C<sub>0</sub>-C<sub>4</sub>-alkyl, heterocyclyl-C<sub>0</sub>-C<sub>4</sub>-alkyl-C<sub>1</sub>-C<sub>8</sub>-alkoxy or heterocyclyloxy-C<sub>0</sub>-C<sub>4</sub>-alkyl-C<sub>1</sub>-C<sub>8</sub>-alkoxy; R<sub>3</sub> is hydrogen, C<sub>1</sub>-C<sub>8</sub>-alkyl, C<sub>1</sub>-C<sub>8</sub>-alkoxycarbonyl or C<sub>1</sub>-C<sub>8</sub>-alkanoyl; R<sub>4</sub> is hydrogen, C<sub>1</sub>-C<sub>8</sub>-alkyl, C<sub>1</sub>-C<sub>8</sub>-alkoxycarbonyl or C<sub>1</sub>-C<sub>8</sub>-alkanoyl; R<sub>5</sub> are each independently hydrogen or C<sub>1</sub>-C<sub>8</sub>-alkyl, or, together with the carbon atom to which they are bonded, are a C<sub>3</sub>-C<sub>8</sub>-cycloalkylidene radical; R is an optionally substituted unsaturated carbocyclic or heterocyclic radical; one of the X<sub>1</sub> and X<sub>2</sub> radicals is carbonyl and the other is methylene; or salt or prodrug thereof, or where one or more atoms are replaced by their stable, non-radioactive isotopes.

2. Compound of the formula I according to Claim 1, where

R<sub>1</sub> is a) hydrogen; or

is b) C<sub>1</sub>-C<sub>8</sub>-alkyl or C<sub>3</sub>-C<sub>8</sub>-cycloalkyl;

R<sub>2</sub> is a) C<sub>1</sub>-C<sub>8</sub>-alkyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl, C<sub>1</sub>-C<sub>8</sub>-alkanoyl, heterocyclyl-C<sub>1</sub>-C<sub>8</sub>-alkanoyl, C<sub>3</sub>-C<sub>12</sub>-cycloalkyl-C<sub>1</sub>-C<sub>8</sub>-alkanoyl or aryl-C<sub>1</sub>-C<sub>8</sub>-alkanoyl, which radicals may be substituted by 1-4 C<sub>1</sub>-C<sub>8</sub>-alkyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkoxy, C<sub>1</sub>-C<sub>8</sub>-alkylamino, cyano, halogen, hydroxyl, oxide, C<sub>0</sub>-C<sub>6</sub>-alkylcarbonylamino, C<sub>1</sub>-C<sub>8</sub>-alkoxy, oxo, trifluoromethyl or aryl; or

is b) together with R<sub>1</sub> and the nitrogen atom to which they are bonded, a saturated or partly unsaturated, 4-8-membered, heterocyclic ring which may contain an additional nitrogen or oxygen atom, in which case the additional nitrogen atom may optionally be substituted by C<sub>1</sub>-C<sub>8</sub>-alkyl or C<sub>1</sub>-C<sub>8</sub>-alkanoyl, and this heterocyclic ring may be part of a bicyclic or tricyclic ring system having a total of up to 16 members and the second ring may also contain a nitrogen or oxygen atom, and the nitrogen atom of the second ring may optionally be substituted by C<sub>1</sub>-C<sub>8</sub>-alkyl or C<sub>1</sub>-C<sub>8</sub>-alkanoyl, and all ring systems mentioned may be substituted by 1-4 C<sub>1</sub>-C<sub>8</sub>-alkyl, hydroxyl, oxo, oxide, C<sub>1</sub>-C<sub>8</sub>-alkoxy, C<sub>1</sub>-C<sub>8</sub>-alkoxy-C<sub>1</sub>-C<sub>8</sub>-alkoxy, C<sub>1</sub>-C<sub>8</sub>-alkylcarbonylamino or aryloxy-C<sub>0</sub>-C<sub>4</sub>-alkyl-C<sub>1</sub>-C<sub>8</sub>-alkoxy.

3. Compound of the formula I according to Claim 1, where

R is a 2-R<sub>A</sub>-4-R<sub>C</sub>-phenyl radical, 2-R<sub>A</sub>-pyridin-3-yl radical or 3-R<sub>A</sub>-pyridin-2-yl radical,

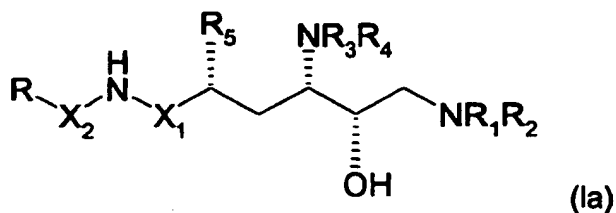
where

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$R_A$  is  $C_1$ - $C_4$ -alkoxy- $C_1$ - $C_4$ -alkyl such as propyloxymethyl, morpholino- $C_1$ - $C_4$ -alkyl such as 2-morpholinoethyl or 3-morpholinopropyl,  $C_1$ - $C_8$ -alkanoylpiperazino- $C_1$ - $C_4$ -alkyl such as N'-acetylpiperazinomethyl,  $C_1$ - $C_8$ -alkoxy such as propyloxy,  $C_1$ - $C_4$ -alkoxy- $C_1$ - $C_5$ -alkoxy such as 2-methoxyethoxy, 3-methoxypropyloxy, 4-methoxybutyloxy or 5-methoxypentyloxy,  $C_1$ - $C_4$ -alkoxy- $C_2$ - $C_4$ -alkenyloxy such as 4-methoxybut-2-enyloxy,  $C_1$ - $C_4$ -alkoxy- $C_1$ - $C_4$ -alkoxy- $C_1$ - $C_4$ -alkoxy such as 2-(methoxymethoxy)ethoxy or 2-(2-methoxyethoxy)ethoxy, amino- $C_1$ - $C_4$ -alkoxy such as 2-aminoethoxy or 3-aminopropoxy, di- $C_1$ - $C_4$ -alkylamino- $C_1$ - $C_4$ -alkoxy such as 3-dimethylaminopropoxy,  $C_1$ - $C_8$ -alkanoyl-amino- $C_1$ - $C_4$ -alkoxy such as N-acetylaminoethoxy,  $C_1$ - $C_8$ -alkanoyl-amino- $C_1$ - $C_4$ -alkyl such as N-acetylaminoethyl, carbamoyl- $C_1$ - $C_4$ -alkoxy such as 2-carbamoylethoxy or carbamoyl, and

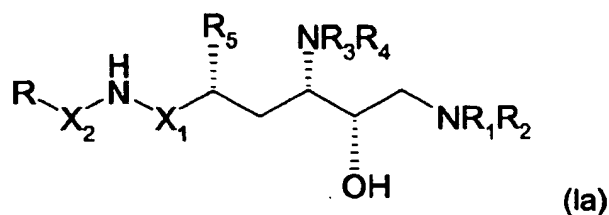
$R_C$  is hydrogen, di- $C_1$ - $C_4$ -alkylamino- $C_1$ - $C_4$ -alkyl such as dimethylaminomethyl, piperidino- $C_1$ - $C_4$ -alkyl such as piperidinomethyl, pyrrolidino- $C_1$ - $C_4$ -alkyl such as pyrrolidinomethyl, morpholino- $C_1$ - $C_4$ -alkyl such as morpholinomethyl,  $C_1$ - $C_8$ -alkanoylpiperazino- $C_1$ - $C_4$ -alkyl such as N'-acetylpiperazinomethyl, or  $C_1$ - $C_4$ -alkylpiperazino- $C_1$ - $C_4$ -alkyl such as N'-methylpiperazinomethyl, morpholino,  $C_1$ - $C_4$ -alkoxy such as methoxy, morpholino- $C_1$ - $C_4$ -alkoxy such as 2-morpholinoethoxy or 3-morpholinopropoxy, morpholino- $C_1$ - $C_4$ -alkylcarbamoyl- $C_1$ - $C_4$ -alkoxy such as 2-morpholinoethylcarbamoylmethoxy, piperidino- $C_1$ - $C_4$ -alkoxy such as 2-piperidinoethoxy, carboxyl, carbamoyl,  $C_1$ - $C_4$ -alkylcarbamoyl such as methylcarbamoyl, carboxy- $C_1$ - $C_4$ -alkoxy such as carboxymethoxy, di- $C_1$ - $C_4$ -alkylamino- $C_1$ - $C_4$ -alkoxy, such as 3-dimethylaminopropoxy,  $C_1$ - $C_8$ -alkylcarbamoyl- $C_1$ - $C_4$ -alkoxy such as butylcarbamoylmethoxy, or tetrazolyl- $C_1$ - $C_4$ -alkoxy, such as tetrazol-5-ylmethoxy,

#### 4. Compound according to Claim 1 of the formula Ia



where  $R$ ,  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $X_1$  and  $X_2$  are each as defined in Claim 1.

## 5. Compound according to Claim 1 of the formula Ia



where

R<sub>1</sub> is a) hydrogen; or

is b) C<sub>1</sub>-C<sub>8</sub>-alkyl or C<sub>3</sub>-C<sub>8</sub>-cycloalkyl;

R<sub>2</sub> is a) C<sub>1</sub>-C<sub>8</sub>-alkyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl, C<sub>1</sub>-C<sub>8</sub>-alkanoyl, heterocyclyl-C<sub>1</sub>-C<sub>8</sub>-alkanoyl, C<sub>3</sub>-C<sub>12</sub>-cycloalkyl-C<sub>1</sub>-C<sub>8</sub>-alkanoyl or aryl-C<sub>1</sub>-C<sub>8</sub>-alkanoyl, which radicals may be substituted by 1-4 C<sub>1</sub>-C<sub>8</sub>-alkyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkoxy, C<sub>1-6</sub>-alkylamino, cyano, halogen, hydroxyl, oxide, C<sub>0</sub>-C<sub>6</sub>-alkylcarbonylamino, C<sub>1</sub>-C<sub>8</sub>-alkoxy, oxo, trifluoromethyl or aryl; or

is b) together with R<sub>1</sub> and the nitrogen atom to which they are bonded, a saturated or partly unsaturated, 4-8-membered, heterocyclic ring which may contain an additional nitrogen or oxygen atom, in which case the additional nitrogen atom may optionally be substituted by C<sub>1</sub>-C<sub>8</sub>-alkyl or C<sub>1</sub>-C<sub>8</sub>-alkanoyl, and this heterocyclic ring may be part of a bicyclic or tricyclic ring system having a total of up to 16 members and the second ring may also contain a nitrogen or oxygen atom, and the nitrogen atom of the second ring may optionally be substituted by C<sub>1</sub>-C<sub>8</sub>-alkyl or C<sub>1</sub>-C<sub>8</sub>-alkanoyl, and all ring systems mentioned may be substituted by 1-4 C<sub>1</sub>-C<sub>8</sub>-alkyl, hydroxyl, oxo, oxide, C<sub>1</sub>-C<sub>8</sub>-alkoxy, C<sub>1</sub>-C<sub>8</sub>-alkoxy-C<sub>1</sub>-C<sub>8</sub>-alkoxy, C<sub>1</sub>-C<sub>8</sub>-alkylcarbonylamino or aryloxy-C<sub>0</sub>-C<sub>4</sub>-alkyl-C<sub>1</sub>-C<sub>8</sub>-alkoxy;

R<sub>3</sub> and R<sub>4</sub> are each hydrogen,

R<sub>5</sub> is C<sub>1</sub>-C<sub>4</sub>-alkyl, such as methyl or isopropyl,

R is a 2-R<sub>A</sub>-4-R<sub>C</sub>-phenyl radical, 2-R<sub>A</sub>-pyridin-3-yl radical or 3-R<sub>A</sub>-pyridin-2-yl radical,

where

R<sub>A</sub> is C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>1</sub>-C<sub>4</sub>-alkyl such as propyloxymethyl, morpholino-C<sub>1</sub>-C<sub>4</sub>-alkyl such as 2-morpholinoethyl or 3-morpholinopropyl, C<sub>1</sub>-C<sub>8</sub>-alkanoylpiperazino-C<sub>1</sub>-C<sub>4</sub>-alkyl such as N'-acetylpiperazinomethyl, C<sub>1</sub>-C<sub>8</sub>-alkoxy such as propyloxy, C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>1</sub>-C<sub>5</sub>-alkoxy such as 2-methoxyethoxy, 3-methoxypropyloxy, 4-methoxybutyloxy or 5-methoxypentyloxy, C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>2</sub>-C<sub>4</sub>-alkenyloxy such as 4-methoxybut-2-enyloxy, C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>1</sub>-C<sub>4</sub>-alkoxy such as 2-(methoxymethoxy)ethoxy or 2-(2-methoxyethoxy)ethoxy, amino-C<sub>1</sub>-C<sub>4</sub>-alkoxy such as

2-aminoethoxy or 3-aminopropoxy, di-C<sub>1</sub>-C<sub>4</sub>-alkylamino-C<sub>1</sub>-C<sub>4</sub>-alkoxy such as 3-dimethylaminopropoxy, C<sub>1</sub>-C<sub>8</sub>-alkanoyl-amino-C<sub>1</sub>-C<sub>4</sub>-alkoxy such as N-acetylaminethoxy, C<sub>1</sub>-C<sub>8</sub>-alkanoyl-amino-C<sub>1</sub>-C<sub>4</sub>-alkyl such as N-acetylaminethyl, carbamoyl-C<sub>1</sub>-C<sub>4</sub>-alkoxy such as 2-carbamoylethoxy or carbamoyl, and

R<sub>C</sub> is hydrogen, di-C<sub>1</sub>-C<sub>4</sub>-alkylamino-C<sub>1</sub>-C<sub>4</sub>-alkyl such as dimethylaminomethyl, piperidino-C<sub>1</sub>-C<sub>4</sub>-alkyl such as piperidinomethyl, pyrrolidino-C<sub>1</sub>-C<sub>4</sub>-alkyl such as pyrrolidinomethyl, morpholino-C<sub>1</sub>-C<sub>4</sub>-alkyl such as morpholinomethyl, C<sub>1</sub>-C<sub>8</sub>-alkanoylpiperazino-C<sub>1</sub>-C<sub>4</sub>-alkyl such as N'-acetyl piperazinomethyl, or C<sub>1</sub>-C<sub>4</sub>-alkylpiperazino-C<sub>1</sub>-C<sub>4</sub>-alkyl such as N'-methylpiperazinomethyl, morpholino, C<sub>1</sub>-C<sub>4</sub>-alkoxy such as methoxy, morpholino-C<sub>1</sub>-C<sub>4</sub>-alkoxy such as 2-morpholinoethoxy or 3-morpholinopropoxy, morpholino-C<sub>1</sub>-C<sub>4</sub>-alkylcarbamoyl-C<sub>1</sub>-C<sub>4</sub>-alkoxy such as 2-morpholinoethylcarbamoylmethoxy, piperidino-C<sub>1</sub>-C<sub>4</sub>-alkoxy such as 2-piperidinoethoxy, carboxyl, carbamoyl, C<sub>1</sub>-C<sub>4</sub>-alkylcarbamoyl such as methylcarbamoyl, carboxy-C<sub>1</sub>-C<sub>4</sub>-alkoxy such as carboxymethoxy, di-C<sub>1</sub>-C<sub>4</sub>-alkylamino-C<sub>1</sub>-C<sub>4</sub>-alkoxy, such as 3-dimethylaminopropoxy, C<sub>1</sub>-C<sub>8</sub>-alkylcarbamoyl-C<sub>1</sub>-C<sub>4</sub>-alkoxy such as butylcarbamoylmethoxy, or tetrazolyl-C<sub>1</sub>-C<sub>4</sub>-alkoxy, such as tetrazol-5-ylmethoxy,

X<sub>1</sub> is methylene and X<sub>2</sub> is carbonyl,  
or a salt thereof, in particular a pharmaceutically usable salt thereof.

6. Compound according to one of Claims 1-5 for use in a method for the therapeutic treatment of the human or animal body.

7. Pharmaceutical preparation comprising, as an active pharmaceutical ingredient, a compound according to one of Claim 1-5 in free form or as a pharmaceutically usable salt.

8. Use of a compound according to one of Claims 1-5 for preparing a pharmaceutical preparation having renin-inhibiting action.

9. Use of a compound according to one of Claims 1-5 for preparing a pharmaceutical preparation for the treatment or prevention of hypertension, heart failure, glaucoma, cardiac infarction, kidney failure or restenosis.